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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,328	01/16/2001	Shigetsugu Hayashi	201638US0DIV	3154

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EXAMINER	
JUSKA, CHERYL ANN	
ART UNIT	**PAPER NUMBER**
1771	9

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/759,328	HAYASHI ET AL.	
	Examiner	Art Unit	
	Cheryl Juska	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 May 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15,16 and 19-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15,16 and 19-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. *09/065,098* .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other

DETAILED ACTION

Response to Amendment

1. Amendment B, submitted as Paper No. 8 on May 9, 2003, has been entered. Claims 15, 16, and 19 have been amended as requested and new claims 20-26 have been added.

2. Amendment B is sufficient to withdraw the 112, 2nd rejections set forth in sections 3-7 of the last Office Action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 is indefinite because it is unclear when and how the high molecular weight compound is dissolved in a reactive mixture as described. It is noted that applicant has deleted the phrase that the reactive mixture is later applied to the anisotropic textile during a method of repairing an existing structure. For the purposes of examination, the claim will be interpreted as being descriptive of a past or future state of the high molecular weight compound, rather than a structural feature of the claimed anisotropic textile.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 15, 16, and 19 stand rejected under 35 USC 103(a) as being unpatentable over US 6,020,275 issued to Stevenson et al., as set forth in section 9 of the last Office Action.

Response to Arguments

7. Applicant's arguments filed with Amendment B have been fully considered but they are not persuasive.

8. Applicant traverses the above 103 rejection over Stevenson by asserting that Stevenson is not available as prior art. In particular, applicant asserts that Stevenson does not get the effective file date, May 12, 1995, of its parent application, 08/440,130 according to *In re Wertheim*, 209 USPQ 554 (Amendment B, page 4, 1st paragraph). *Wertheim* held in order to carry back the 35 U.S.C. 102(e) critical date of the U.S. patent reference to the filing date of a parent application, the parent application must (A) have a right of priority to the earlier date under 35 U.S.C. 120 or 365(c) and (B) support the invention claimed as required by 35 U.S.C. 112, first paragraph. (See MPEP 2136.03, Critical Reference Date, section IV, PARENT'S FILING DATE WHEN REFERENCE IS A CONTINUATION-IN-PART OF THE PARENT.) In other words, in order for a patent to receive the effective filing date of a parent application from which said patent is a continuation-in-part, the parent application must support the invention as claimed in the patent, wherein in said support must be as required under 112, 1st paragraph.

As such, applicant asserts the parent application 08/440,130 does not support the invention claimed in Stevenson. Specifically, applicant asserts the parent application does not support the limitation recited in each independent claim of the Stevenson patent (i.e., "each weft yarn being interwoven with the warp yarns independently of adjacent weft yarns, each warp yarn being interwoven with the weft yarns independently of adjacent warp yarns"). "This subject matter is supported in the disclosure of Stevenson et al. at, for example, column 8, lines 46-52. There is no corresponding disclosure in the parent application." (Amendment B, page 4, 2nd paragraph) Hence, applicant asserts Stevenson does not get the filing date of May 12, 1995.

The examiner respectfully disagrees. Although the passage recited at col. 8, lines 46-52 of Stevenson may not appear in the disclosure of application 08/440,130, the subject matter of the patented claims is indeed supported according to 112, 1st by the parent application. In particular, said passage recites, "As illustrated in FIGS. 1 and 2, each weft yarns 16 (e.g., 16d) is interlaced with the warp yarns 20 independently of adjacent weft yarns 16 (e.g., 16c and 16e), and each warp yarn 20 (e.g., 20d) is interlaced with the weft yarns 16 independently of adjacent warp yarns 20 (e.g., 20c and 20e)." Thus, said passage merely describes what is shown in Figures 1 and 2. Since the parent application contains the same figures as the patent to Stevenson, it is asserted that the 112, 1st requirement for the subject matter of the Stevenson claims is met by the disclosure of the parent application 08/440,130. Therefore, it is held that said Stevenson patent has a 102(e) date of May 12, 1995, which precedes the file date of the present application (January 16, 2001) and the foreign priority date for which a certified translation has been received (February 26, 1996).

9. Applicant also traverses the above Stevenson rejection by asserting that the invention does not teach the basic structure of the present invention (Amendment B, page 6, 1st paragraph). While the present invention involves warp fibers having certain properties and weft fibers having other properties, Stevenson merely teaches the use of different types of fibers is not related to whether the yarns are warp or weft yarns (Amendment B, page 6, 1st paragraph). In response, it is agreed that Stevenson teaches the load bearing yarns are present in both the warp and weft (col. 4, lines 45-47). However, Stevenson also explicitly teaches the fabric may be made with a greater strength in either the lateral or longitudinal directions (i.e., anisotropic) by modifying the type, number, and location of load bearing yarns (col. 5, lines 27-35 and col. 10, lines 33-39). One skilled in the art would readily understand that the anisotropic fabric can be made by employing more load bearing yarns in the warp direction compared to the weft direction or vice versa. Additionally, Stevenson teaches the fusible bonding yarns may be warp yarns and/or weft yarns (col. 4, lines 66-67). Thus, Stevenson clearly teaches the load bearing yarns may be present to a greater extent in either the warp or weft direction and the binder yarns may be in either one of the directions. Furthermore, since applicant's claims do not exclude the presence of two types of yarns in either the warp or weft directions, it is argued that the disclosure of Stevenson teaches the present basic structure. Therefore, applicant's argument is found unpersuasive and the above rejection of claims 15, 16, and 19 over the Stevenson patent is maintained.

New Claim Rejections

10. Claims 20-26 are rejected under 35 USC 103(a) as being unpatentable over US 6,020,275 issued to Stevenson et al.,

With respect to claim 20, it is noted that said claim merely limits the reactive mixture of claim 19. Since, as noted above, the reactive mixture limitation of claim 19 is not given patentable weight at this time, neither is the limitation of claim 20. Hence, claim 20 is rejected along with claim 19.

With respect to claim 21, it is noted that Stevenson does not explicitly teach carbon fibers as load bearing yarns. However, it is asserted that the selection of carbon fibers would have been obvious to one of ordinary skill in the art, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. The limitation of the claimed tensile strength would inherently be met upon the selection of carbon fibers as the load bearing yarn. Thus, claim 21 is rejected as being obvious over the cited Stevenson patent.

Stevenson teaches the fusible component (i.e., low melting point component) of the fusible fiber may be polyethylene (col. 10, line 52-col. 11, line 4). When the fusible yarn is comprised of a bicomponent fiber, the low melting component is present in an amount ranging from 30-70% by weight, or a low to high ratio of 0.4 - 2.3 : 1 (col. 10, lines 64-67). Thus, claims 22, 24, and 25 are rejected.

In an alternative embodiment, Stevenson teaches the bonding of the junctions of the warp and wefts by impregnation with a polymer (i.e., high molecular weight compound) (col. 11, lines 5-9). The polymer is applied as an aqueous dispersion and then cured (col. 11, lines 9-15). "The

polymer may be a urethane, acrylic, vinyl, rubber, or other suitable polymer which will form a bond with the yarns used in the textile." (Col. 11, lines 16-18) Thus, claim 23 is rejected.

With respect to claim 26, as argued previously, Stevenson teaches the mesh opening size (i.e., spacing) may be modified according to the desired performance requirements (col. 9, lines 23-27). Hence, claim 26 is obvious over the cited Stevenson patent.

Conclusion

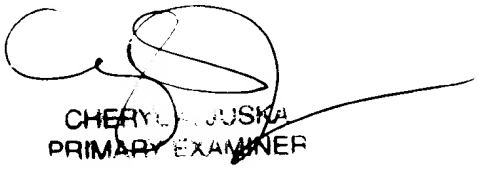
11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Cheryl Juska whose telephone number is 703-305-4472. The Examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



cj
July 14, 2003